INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PRELIMINARY ASSESSMENT REPORT

FOR

LANE STREET GROUND WATER CONTAMINATION

ELKHART, INDIANA

ELKHART COUNTY

OCTOBER 5, 2007

EPA ID: INN000510229

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
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(800) 451-6027
www.IN.gov/idem

December 19, 2007

Ms. Laura Ripley
Site Assessment Section
U.S. EPA, Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Dear Ms. Ripley:

Re: Site Summary
Lane Street Ground
Water Contamination
Elkhart, Indiana

The site was reported to Indiana Department of Environmental Management (IDEM) from a representative of the Elkhart County Health Department (ECHD). The ECHD received a call from a resident who resides on Lane Street. The resident, who obtains drinking water from a private well, had her water analyzed for volatile organic compounds. The analysis revealed elevated levels (1560 µg/l) of trichloroethylene (TCE). The maximum contaminant level for TCE is 5 µg/l.

Lane Street lies adjacent to a known ground water plume that is being addressed by IDEM's Voluntary Remediation Program (VRP). The responsible party for the known ground water plume in the area indicated that the contamination found on Lane Street is from another source because some of the contaminants are different than those detected in the known ground water plume and the geology of the area show the contamination of the known ground water plume is confined to a specific area east of Lane Street.

On August 23, 2007, Site Investigation staff sampled the ground water from seven (7) private wells on and north of Lane Street including the residence that had phoned the ECHD with the elevated TCE concentration. This sampling was conducted as part of a PreCERCLIS Screening for the site. Analysis of the ground water samples revealed that the drinking water in four (4) residential wells were found to contain elevated levels of VOC's at concentrations above MCLs.

On August 31, 2007, Site Investigation staff sampled 39 drinking water samples on Lane Street and from some of the facilities located to the north of County Road 106.

The sampling was conducted as part of a Preliminary Assessment for the site. Analysis of those water samples revealed that elevated levels of volatile organic compounds were present in 13 of the water samples. The water in 10 of the wells sampled had trichloroethylene levels above the maximum contaminant level (MCL).

The site lies in a predominantly residential area providing many potential targets in the event of an off site release of hazardous materials. Approximately 26 homes on Lane Street utilize private wells for drinking water. These 26 homes are located downgradient from the TCE contamination on Lane Street and may be subject to ground water contamination.

Should you have any questions regarding the contents of this correspondence, please contact me at (317) 233-2407.

Sincerely,

Mark Jaworski
Site Investigation Section
Office of Land Quality

MJ/sb

Signature Page
For
Lane Street Ground Water Contamination
Elkhart, Indiana

Prepared by: Mark L. Jaworski Date: 10-31-07
Mark L. Jaworski, Project Leader
Site Investigation Section
Indiana Department of Environmental Management

Reviewed By: Timothy R. Johnson Date: 11/1/07
Tim Johnson, SEM I
Site Investigation Section
Indiana Department of Environmental Management

Approved By: Gabriele Hauer Date: 11/07/07
Gabriele Hauer, Chief
Site Investigation Section
Indiana Department of Environmental Management

Approved By: Erica Ables Date: 12/18/07
EPA Site Assessment Manager

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Section I

INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Indiana Department of Environmental Management (IDEM), Site Investigation Section, has been tasked to conduct a Preliminary Assessment (PA) at the Lane Street Ground Water Contamination (LNGWC) site in Elkhart County, Indiana. The purpose of the investigation was to obtain information concerning conditions at the LNGWC site sufficient to determine the need for additional CERCLA or other appropriate action. The scope of the PA investigation included a review of file information, a sampling event, a comprehensive target survey, and an on-site reconnaissance.

Section II

Site Background

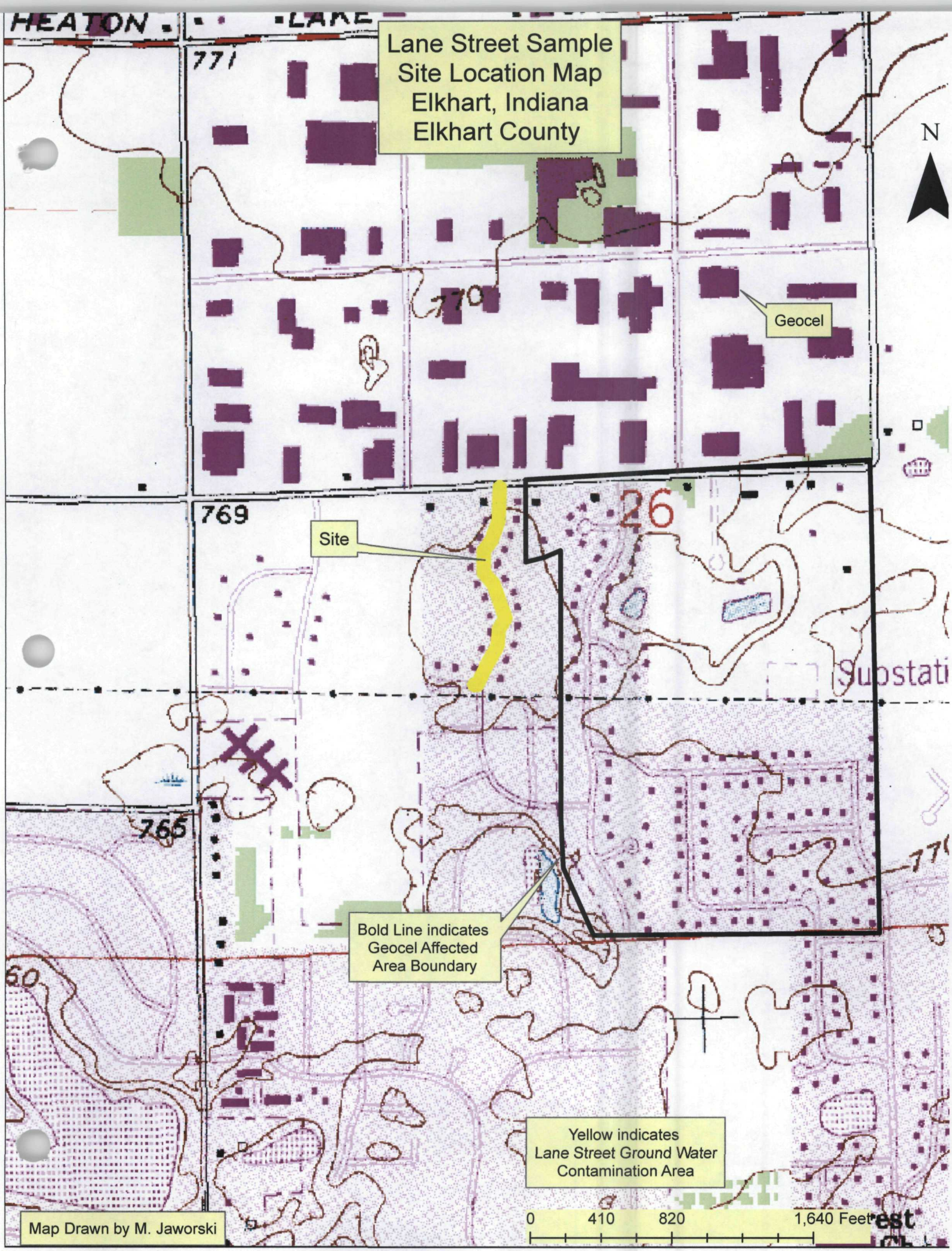
2.1 Introduction

This section includes information obtained from the site representative interviews and IDEM files.

2.2 SITE LOCATION and DESCRIPTION

The site can be found in Section 26, Township 38 North, Range 5 East North, Range 9 East (Figure 1, Page 2-2). The site's geographic coordinates are 41° 43′ 0.39″ North Latitude and 86° 85′ 15.58″ West Longitude.

The site is comprised of a residential subdivision, several plant buildings, an office building, a parking lot, and an open field vegetated in grasses. Lane Street is bounded to the north by County Road 106, to the east by Kershner Street, to the south by another residential subdivision and to the west by farm land. The site is located in a predominantly residential area providing many potential targets. An industrial park located north of County Road 106 is comprised of numerous plant buildings with various operations and offices. Refer to the Site Location Map on page 2-2


Lane Street Sample
Site Location Map
Elkhart, Indiana
Elkhart County
N
Geocel
Site
Bold Line indicates
Geocel Affected
Area Boundary
Yellow indicates
Lane Street Ground Water
Contamination Area
Map Drawn by M. Jaworski
0
410
820
1,640 Feet
HEATON
LAKE
771
770
769
765
760
26

2.3 Site History and Waste Characteristics

In October 2006, a Phase I Environmental Site Assessment (ESA) was conducted for the Geocel facility located at 53280 Marina Road in Elkhart, Indiana. Operations at the Geocel facility involve the manufacturing and packaging of sealants, caulks, and adhesives. General processes include product formulation/mixing and packaging into tubes and other containers. A variety of hazardous and non-hazardous chemicals are used and stored at the site. The ESA concluded that a subsurface investigation should be completed in the vicinity of a former Tetrachloroethene (PCE) underground storage tank (UST). The UST was removed in 1986. Subsequent investigations in this area indicated that a release of chlorinated solvents had occurred to the ground water pathway. The chlorinated solvents were found to have migrated off site to the south into a residential area. All residents in this area obtain drinking water from individual private wells. The water in many of the residential wells was found to contain elevated levels of volatile organic compounds. Geocel supplied carbon filters to the residents.

Geocel alerted IDEM and the Elkhart County Health Department about the ground water contamination and applied to IDEM's Voluntary Remediation Program (VRP). Geocel was accepted

in the program on July 12, 2007.

Geocel's investigation concluded that the ground water contamination was confined to an area bordered by Kershner Street to the west, the Geocel facility to the north, County Road 113 to the east, and Crestwood Street to the south.

On August 22, 2007, the Site Investigation Section of the Indiana Department of Environmental Management (IDEM) staff received a call from the Elkhart County Health Department (ECHD). The ECHD stated that a resident located at 43514 Lane Street had submitted a sample of her drinking water to the Water Quality Laboratory at Heidelberg College in Tiffin, Ohio. The analysis of the water revealed highly elevated levels of trichloroethylene (1560 μg/l) and other break down products.

Geocel is not claiming responsibility for the contamination on Lane street because: 1) the ground water contamination lies outside of their area of influence, and 2) the ground water plume appears to be another plume consisting of other contaminants not detected on Kershner St.

On August 23, 2007, IDEM staff conducted a visual site reconnaissance of the surrounding properties. The majority of residents on and around Lane Street utilize private wells for drinking water. Numerous businesses and small industries lie in an industrial park located north of County Road 106.

After the site reconnaissance, Site Investigation staff sampled the ground water from seven private wells on and north of Lane Street including the residence that had phoned the ECHD with the elevated TCE concentration. Analysis of the Ground water samples revealed that the drinking water in four residential wells were found to contain elevated levels of VOC's at concentrations above MCLs.

Section III

Field Observations and Sampling Procedures

3.1 Introduction

This section outlines the procedures and observations of the Lane Street Ground Water Contamination Preliminary Assessment.

3.2 Site Reconnaissance and Observations

On August 30, 2007 Mark Jaworski, (Project Manager) met with Tim Johnson, Bill Giles, IDEM Site Investigation Section, Jason Murdoc, Alyn DeLong, Chris Ferguson, IDEM Chemistry Section, Kevin Houpert, and Aunna Huber, State Clean Up Section, at the Lane Street Ground Water Contamination Site. The purpose of the meeting was to document site conditions, identify nearby industries, and sample approximately 30 private wells to determine the impact of hazardous materials that had been released to the ground water pathway. Inspection of the site revealed the following observations:

A. The impacted wells that were sampled on August 23 lie predominantly in a residential area on Lane Street.

B. About 25 residents on Lane Street utilize private wells for obtaining drinking water

C. There are about 30 different industrial/commercial facilities located northwest, north, and northeast of Lane Street that could potentially be a source of the ground water contamination.

D. Some stressed vegetation was observed between buildings at one of the industrial locations.

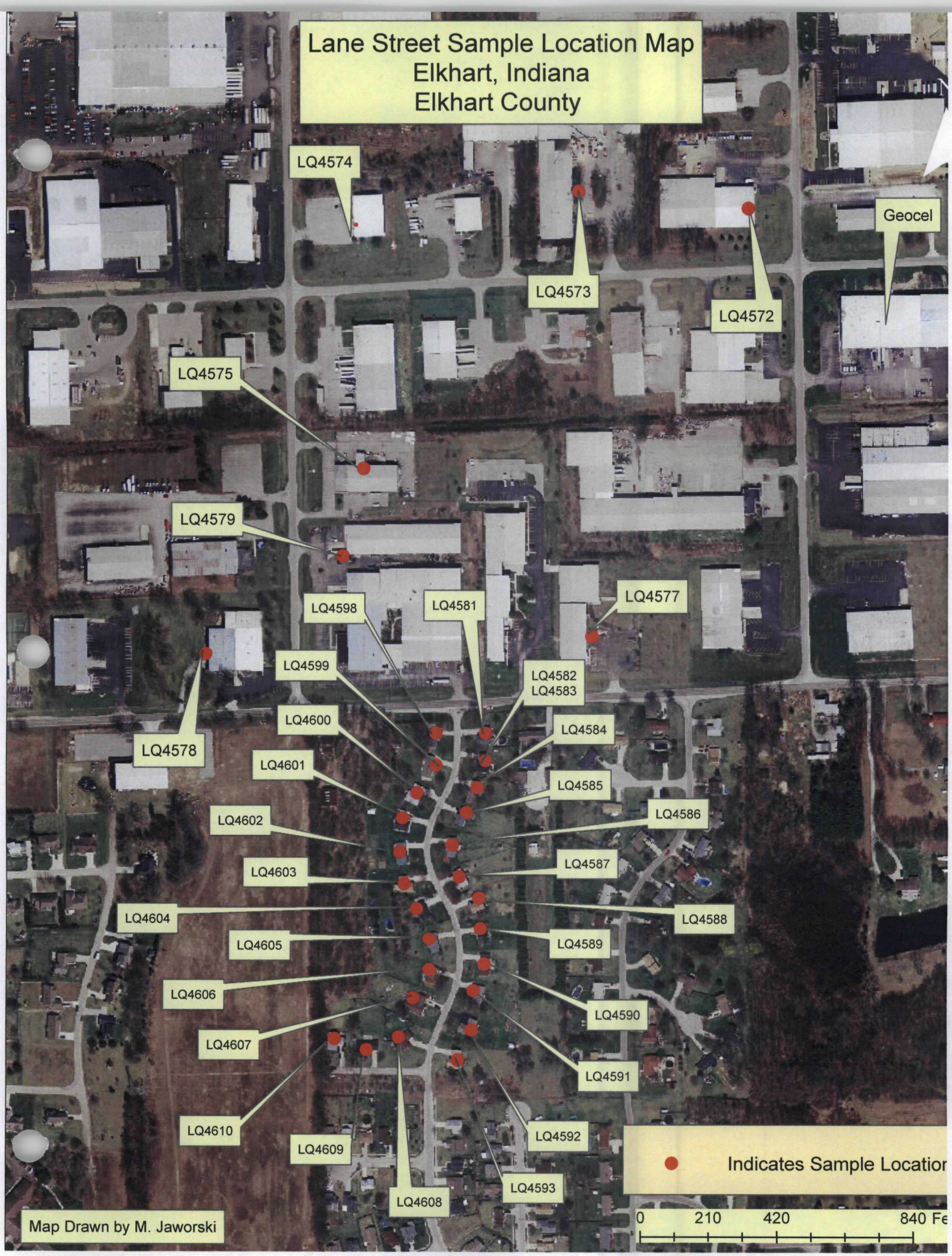
E. There were no storm drains in the industrial park north of Lane Street

F. Irrigation systems were common in the industrial area from a ground water source in addition to the city municipal water system.

3.3. Ground Water Sampling

On August 30, IDEM staff collected a total of thirty nine drinking water samples for the Lane Street Ground Water Contamination site. All samples were analyzed by Heritage Laboratory, IDEM's state approved laboratory. The samples were analyzed for volatile organic compounds. The samples are identified by LQ4570 through LQ4579, LQ4581 through LQ4595, and LQ4597 through LQ4610. Refer to the Sample Location Map on page 3-3 for the location of each sample. The Sample Location and Comment Table, Pages 3-4 through 3-6, depicts the location and any comments regarding each sample.

All ground water samples collected from the residential wells were obtained by first purging the well (allowing the well


Lane Street Sample Location Map
Elkhart, Indiana
Elkhart County
LQ4574
LQ4573
LQ4572
Geocel
LQ4575
LQ4579
LQ4577
LQ4598
LQ4581
LQ4599
LQ4582
LQ4583
LQ4600
LQ4584
LQ4578
LQ4601
LQ4585
LQ4602
LQ4586
LQ4603
LQ4587
LQ4604
LQ4588
LQ4605
LQ4589
LQ4606
LQ4590
LQ4607
LQ4591
LQ4610
LQ4592
LQ4609
LQ4593
LQ4608
Indicates Sample Location
0
210
420
840 Fe
Map Drawn by M. Jaworski

Sample Location and Comment Table

Sample ID	Sample Location	Comments
LQ4570	53468 Cr 113 N Elkhart, In 46514	Clear
LQ4571	Heritage Laboratory Indianapolis, Indiana	Trip Blank
LQ4572	53217 Marina Dr. Elkhart, In 46514	Clear
LQ4573	23551 Cooper Dr. Elkhart, Indiana	Clear
LQ4574	5312 Ada Dr. Elkhart, Indiana	Clear
LQ4575	53386 Ada Dr. Elkhart, Indiana	Clear
LQ4576	Heritage Laboratory Elkhart, Indiana	Trip Blank
LQ4577	23537 County Road 106 Elkhart, Indiana	Clear
LQ4578	53465 Ada Dr. Elkhart, Indiana	Clear
LQ4579	53468 Ada Dr. Elkhart, Indiana	Clear
LQ4581	53514 Lane St. Elkhart, Indiana	Clear
LQ4582	53532 Lane St. Elkhart, Indiana	Clear
LQ4583	53532 Lane St. Elkhart, Indiana	Duplicate of LQ 4582

Sample Location and Comment Table (Continued)

Sample ID	Sample Location	Comments
LQ4584	53548 Lane St. Elkhart, Indiana	Clear
LQ4585	53564 Lane St. Elkhart, Indiana	Clear
LQ4586	53584 Lane St. Elkhart, Indiana	Clear
LQ4587	53604 Lane St. Elkhart, Indiana	Clear
LQ4588	53618 Lane St. Elkhart, Indiana	Clear
LQ4589	53634 Lane St. Elkhart, Indiana	Clear
LQ4590	53652 Lane St. Elkhart, Indiana	Clear
LQ4591	53668 Lane St. Elkhart, Indiana	Clear
LQ4592	53684 Lane St. Elkhart, Indiana	Clear
LQ4593	53707 Lane St. Elkhart, Indiana	Clear
LQ4594	Heritage Laboratory Indianapolis, Indiana	Trip Blank
LQ4595	Heritage Laboratory Indianapolis, Indiana	Trip Blank
LQ4597	Heritage Laboratory Indianapolis, Indiana	Trip Blank
LQ4598	53515 Lane St. Elkhart, Indiana	Clear

Sample Location and Comment Table (Continued)

Sample ID	Sample Location	Comments
LQ4599	53535 Lane St. Elkhart, Indiana	Clear
LQ4600	53553 Lane St. Elkhart, Indiana	Clear
LQ4602	53585 Lane St. Elkhart, Indiana	Clear
LQ4601	53569 Lane St. Elkhart, Indiana	Clear
LQ4603	53601 Lane St. Elkhart, Indiana	Clear
LQ4604	53615 Lane St. Elkhart, Indiana	Clear
LQ4605	53635 Lane St. Elkhart, Indiana	Clear
LQ4606	53657 Lane St. Elkhart, Indiana	Clear
LQ4607	53677 Lane St. Elkhart, Indiana	Clear
LQ4608	53695 Lane St. Elkhart, Indiana	Clear
LQ4609	23723 Barley Elkhart, Indiana	Clear
LQ4610	23741 Barley Elkhart, Indiana	Clear

to run for 15 minutes) and then allowing the water to flow directly into the samples jars from the spigot. Nitrile surgical gloves were worn and discarded between the collection of each sample.

The laboratory results from the sampling have been determined to be acceptable for use and meet the criteria contained under IDEM quality criteria. Refer to Analytical Results in Appendix C.

Any exceptions to the acceptance of this data will be identified in the QA/QC memorandums by the U.S. EPA chemists and IDEM chemists. Refer to Appendix C.

Section IV

Discussion of Migration Pathways

4.0 Introduction

Potential migration pathways for contaminants emanating From the Lane Street Ground Water Contamination site are discussed in this section. Potential contaminant migration through ground water, surface water (including drinking threat, human food chain threat, and environmental threat), and soil exposure is discussed.

4.1 Ground Water Pathway

The site is located in the Kankakee Outwash and Lacustrine Plain of the Northern Moraine and Lake Region physiographic unit in northern Indiana (Malott, 1922). Unconsolidated deposits in this area consist of thick units of Wisconsinan-aged glacial outwash deposits that were deposited by ice advances of the Saginaw and Erie Lobes approximately 15,000 years ago (Wayne, 1966). Approximately 150 ft of unconsolidated deposits overlie Devonian and Mississippian-aged shale bedrock units of the Antrim and Ellsworth Formations. In the vicinity of the site, an unconfined surficial aquifer consisting of sand and gravel

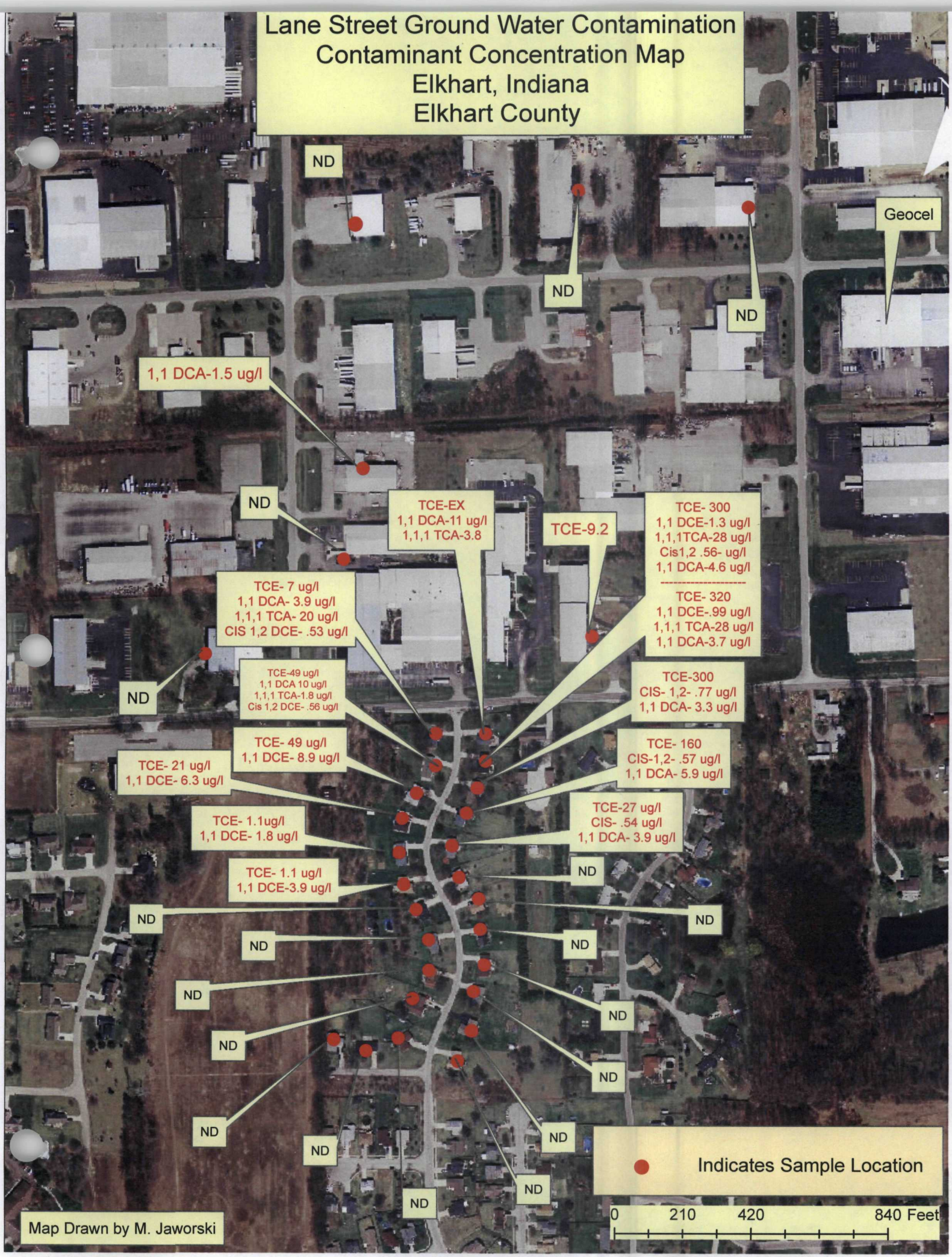
units extends to a depth at least 50 ft below the ground surface. The upper aquifer and a lower, confined, sand and gravel aquifer that extends to the bedrock surface are separated by an aerially extensive confining unit that is between 0 and 50 ft thick across the northwestern part of the county (Arihood and Cohen, 1997). Hydraulic conductivity values for the aquifers are estimated (by calibrated ground water flow models) to be on the order of magnitude of 10^{-1} to 10^{-2} cm/s. The depth to ground water ranges from 6 to 15 ft below the ground surface. Ground water flow is believed to be to the south towards the St. Joseph River, which is located approximately 1.4 miles south of the site. Soils at the site have been classified as "Plainfield fine sand, 0-2% slopes", which is described as "deep, excessively drained and somewhat excessively drained, coarse-textured soil that developed in sandy outwash" (USDA, 1974). The soils are up to 60 inches thick and have a very high permeability (>20 inches per hour). Ground water use is high in the immediate area and is used primarily for drinking water and some industrial purposes. At least 50 residential drinking water wells have been identified within 1 mile of the site. The majority of these wells are screened less than 35 ft below the ground surface. The site is located approximately 2.5 miles northwest of the City of Elkhart municipal water wells and is well outside of the 10-year time of travel well head protection

area. Vinyl chloride contamination from a release at the Geocel site has been detected in ground water samples collected from residential water wells along Kershner Street, which is immediately east of the site. The contamination from the Geocel site is being addressed by the Indiana Department of Environmental Management's Voluntary Remediation Program.

Sample results from the August 30 sampling event indicate that the water from eleven residential wells and two business wells were found to contain elevated levels of volatile organic compounds (VOCs). Refer to the Contaminant Concentration Map on Page 4-4 for a detailed description and concentration of the VOCs detected. The map also shows the location of all detected contaminants.

4.3 SURFACE WATER PATHWAY

No storm sewers are present in the vicinity of the site and drainage is mainly internal. As a result, the potential for contamination flowing directly into surface water is negligible. There is no overland flow probable point of entry for the overland flow pathway. However, several small lakes and ponds that could serve as local ground water discharge points are located between the site and the river. Ground water from the area of the site discharges directly into the St. Joseph River.The St. Joseph River is located one and a half miles to


Lane Street Ground Water Contamination
Contaminant Concentration Map
Elkhart, Indiana
Elkhart County
ND
ND
ND
Geocel
1,1 DCA-1.5 ug/l
ND
TCE-EX
1,1 DCA-11 ug/l
1,1,1 TCA-3.8
TCE-9.2
TCE- 300
1,1 DCE-1.3 ug/l
1,1,1TCA-28 ug/l
Cis1,2 .56- ug/l
1,1 DCA-4.6 ug/l
TCE- 320
1,1 DCE-.99 ug/l
1,1,1 TCA-28 ug/l
1,1 DCA-3.7 ug/l
TCE- 7 ug/l
1,1 DCA- 3.9 ug/l
1,1,1 TCA- 20 ug/l
CIS 1,2 DCE- .53 ug/l
ND
TCE-49 ug/l
1,1 DCA 10 ug/l
1,1,1 TCA-1.8 ug/l
Cis 1,2 DCE- .56 ug/l
TCE-300
CIS- 1,2- .77 ug/l
1,1 DCA- 3.3 ug/l
TCE- 49 ug/l
1,1 DCE- 8.9 ug/l
TCE- 160
CIS-1,2- .57 ug/l
1,1 DCA- 5.9 ug/l
TCE- 21 ug/l
1,1 DCE- 6.3 ug/l
TCE- 1.1ug/l
1,1 DCE- 1.8 ug/l
TCE-27 ug/l
CIS- .54 ug/l
1,1 DCA- 3.9 ug/l
TCE- 1.1 ug/l
1,1 DCE-3.9 ug/l
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
ND
Indicates Sample Location
0
210
420
840 Feet
Map Drawn by M. Jaworski

the south of the site.

Assuming the direction of ground water flow is directly to the south and the width of the plume is approximately ¾ mile in width when it reaches the river, the probably point of entry for the discharge of ground water to surface water is between Marguerite Ave. to the west and Shorelane East to the east. Surface water samples, down gradient from Lane Street, would need to be obtained to determine if a release to the surface water pathway has occurred.

4.3.1 Drinking Water Threat

All residents within the 4 mile radius of the Lane Street Ground Water Contamination site obtain drinking water from private and municipal wells. There are no known surface water intakes located within the 15 mile surface water pathway that are being solely used as human drinking water sources. There does not appear to be a drinking water threat in the surface water pathway.

4.3.2 Human Food Chain Threat

The St. Joseph River is considered a fishery. As stated in Section 4.3, the potential for contaminants to flow directly

into the surface water is negligible. Currently there are no known fish advisories regarding volatile organic compounds in aquatic life residing in the St. Joseph River.

4.3.3 Environmental Threat

Currently there are no known contaminants in surface soils that could impact any sensitive environments. Soil sampling and a sensitive environment survey will need to be conducted to determine if any environmental threat exists.

4.4 Soil Exposure

The site lies in a residential area. Soils outlined within the study area of the Lane Street Ground Water Contamination are accessible to the public and workers of businesses located in the Lane Street area. There are no schools or daycare facilities within 200 feet of the site. Refer to the 4-Mile Radius Map, Appendix A, for the population within each distance ring. No soil samples were collected as part of this Preliminary Assessment.

4.5 Air

No air samples were collected. Presently, there are no reports of adverse health effects potentially resulting from the migration of any solvents or odors in the area. A potential exists for vapor intrusion of VOCs into the indoor air of the residents' homes that have been impacted with contaminated drinking water.

Section V

Site Summary and Conclusions

The site was reported to IDEM from a representative of the Elkhart County Health Department (ECHD). The ECHD received a call from a resident who resides on Lane Street. The resident, who obtains drinking water from a private well, had her water analyzed for volatile organic compounds. The analysis revealed elevated levels (1560 ug/l) of trichloroethylene (TCE). The maximum contaminant level for TCE is 5 ug/l.

Lane Street lies adjacent to a known ground water plume that is being addressed by IDEM's Voluntary Remediation Program (VRP). The responsible party for the known ground water plume in the area indicated that the contamination found on Lane Street is from another source because some of the contaminants are different than those detected in the known ground water plume and the geology of the area show the contamination of the known ground water plume is confined to a specific area east of Lane Street.

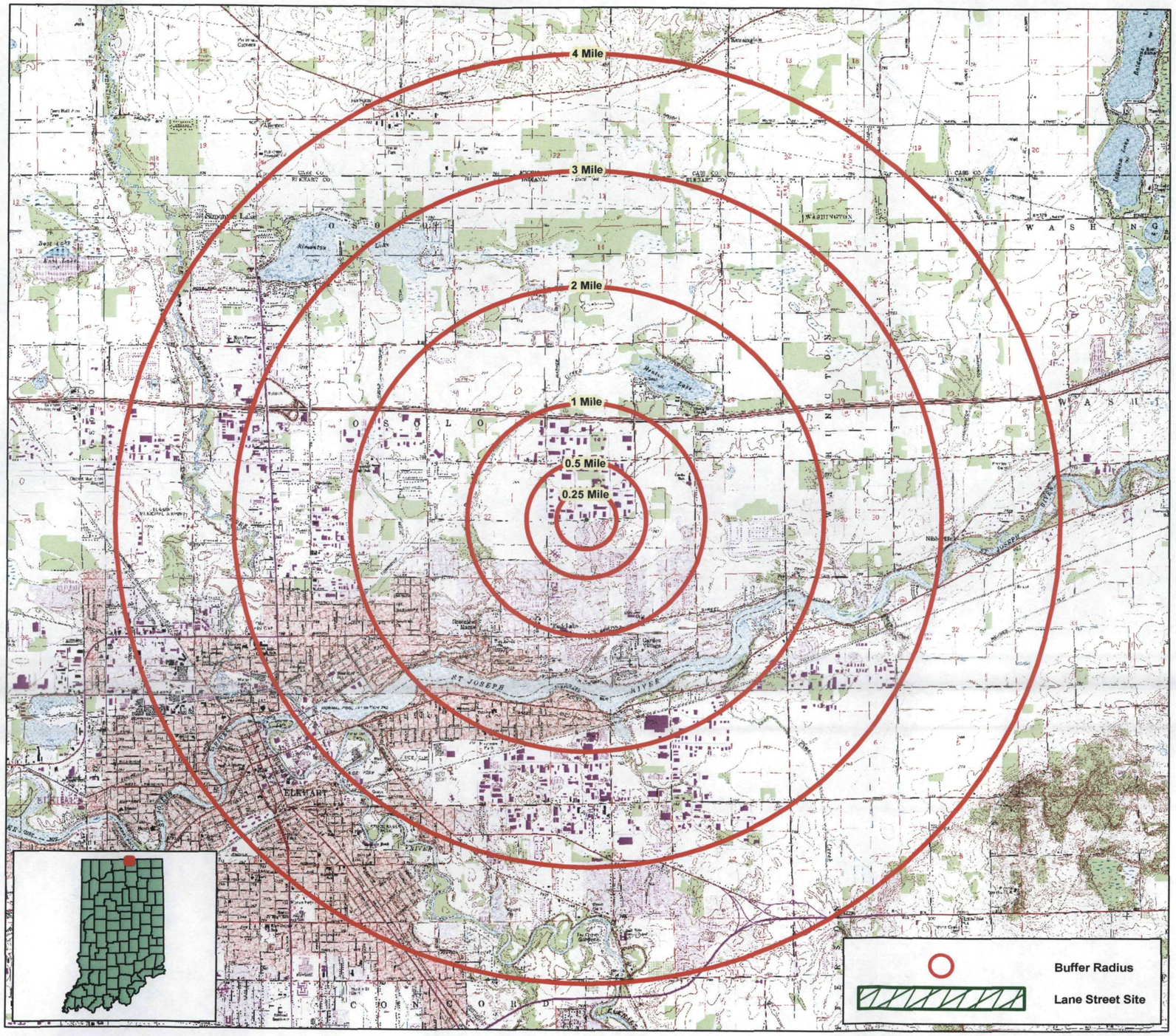
On August 30, 2007, Site Investigation staff sampled the ground water from thirty nine private wells on and north of Lane Street. Analysis of the ground water samples revealed that the drinking water in four residential wells were found to contain

elevated levels of VOC's at concentrations above MCLs.

The site lies in a predominantly residential area providing many potential targets in the event of an off site release of hazardous materials. Approximately 26 homes on Lane Street utilize private wells for drinking water and are subject to ground water contamination. Site investigation staff recommends that a Site Inspection be conducted under CERCLA to determine the impact of ground water contamination to the nearby citizens.

APPENDIX A

Four Mile Radius Map



Lane Street
Ground Water Contamination
Elkhart, Elkhart County, IN
US EPA ID: INN 000510229
Four Mile Radius Map

85°55'15.33"W 41°43'0.64"N
(Lane Street and CR 106)

Buffer Distance	Adjusted Population
0.25 Mile	249
0.5 Mile	698
1 Mile	2656
2 Mile	10536
3 Mile	14584
4 Mile	23418

Mapped by: Diane Osborn, IDEM, Office of Land Quality, Engineering & GIS Services, October 2007

Sources:
IDEM 4 Mile Mapper Application
USGS Digital Raster Graphics 1:24,000 topographic map
Census block group 2000 total population
Census 2000 County Boundaries
Census 2000 City Boundaries
Aerial Photography Flown in 2005 for the Indiana Department of Homeland Security

Disclaimer: This map does not represent a legal document. It is intended to serve as an aid in graphic representation only. It is not warranted for accuracy or suitability for any purpose. There are known sources of error in the population estimates presented on this map including:

- The Census 2000 block group population data is out of date, and is itself an imperfect estimate of population.
- The adjusted population estimate derived from the Census 2000 block group data assumes that the population is evenly distributed in each block group polygon.
- The Census 2000 block group population has been clipped to include Indiana data only.

Method of Estimating Population: The adjusted population estimate is the sum of Census 2000 block group populations (TOTALPOP field) adjusted to include only the areas of the block groups contained inside the buffers. The adjusted population estimate assumes that the population is evenly distributed in each block group polygon. The specific procedure used in this analysis is as follows:

1. The study area or site is drawn on screen by the user. The study area can be 1 or more polygons.
2. The user selects the polygon(s) to include in the population estimate, and clicks a button to perform the rest of the analysis which is described in the following steps.
3. The study area polygon(s) are buffered at .0001, ¼, ½, 1, 2, 3 and 4 miles. The buffers are stored as polygons in a shapefile. In analyses with more than one study area polygon, intersecting buffers are dissolved to prevent overlapping buffers of the same buffer distance. This is necessary to prevent counting the population more than once in areas where buffers overlap.
4. A spatial union is performed on the block group layer and the buffers layer resulting in a new layer containing polygons reflecting the combined geography of the block groups and the buffers. The new polygons inherit the attributes of the parent polygons from the block groups and buffers layers, including the population and area of the parent block group polygon. The area of the new polygons is not calculated automatically during the union.
5. The geographic area of each new polygon is determined through a field calculation using a piece of visual basic code. See ArcGIS Help for a discussion of this process including the code.
6. Following step 5, each new polygon has an attribute record containing the geographic area of the new polygon, the geographic area of the parent block group, and the TOTALPOP field population value from the parent block group. Dividing the area of the new polygon by the area of the parent block group and multiplying that value by the population yields a population estimate for each new polygon. For example: Block Group A with an area of 10 square miles and a population of 200 people is split into 2 polygons by the 4 mile buffer ring. The area of the block group inside the 4 mile buffer is 2 square miles, or 20% of the area of the original 10 square mile block group. Assuming the population is uniformly distributed in Block Group A, the population from Block Group A that is within the 4 mile buffer ring should also be 20% of the total population for the block group. Twenty percent of 200 is 40 people. (2 ÷10 × 200 = 40)
7. The new population figures from step 6 are automatically summed and compiled into a table that is displayed on the print layout. The automatic summing process completed by the 4 Mile Mapper application produces population estimates that include the entire population from the site out to each buffer distance (e.g. 0 to 0.25, 0 to .50, 0 to 1, 0 to 2...). The map author manually recalculates these figures by taking the population for each buffer distance and subtracting the population of the next smaller buffer distance to provide a population figure for the donut area bounded by each pair of consecutive buffer distances (e.g. 0 to 0.25, 0.25 to 0.5, 0.5 to 1, 1 to 2...). The population table is labeled and revised to reflect these values, and a total population figure is added to reflect the population from the site out to the 4 mile buffer distance.

IDEM
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

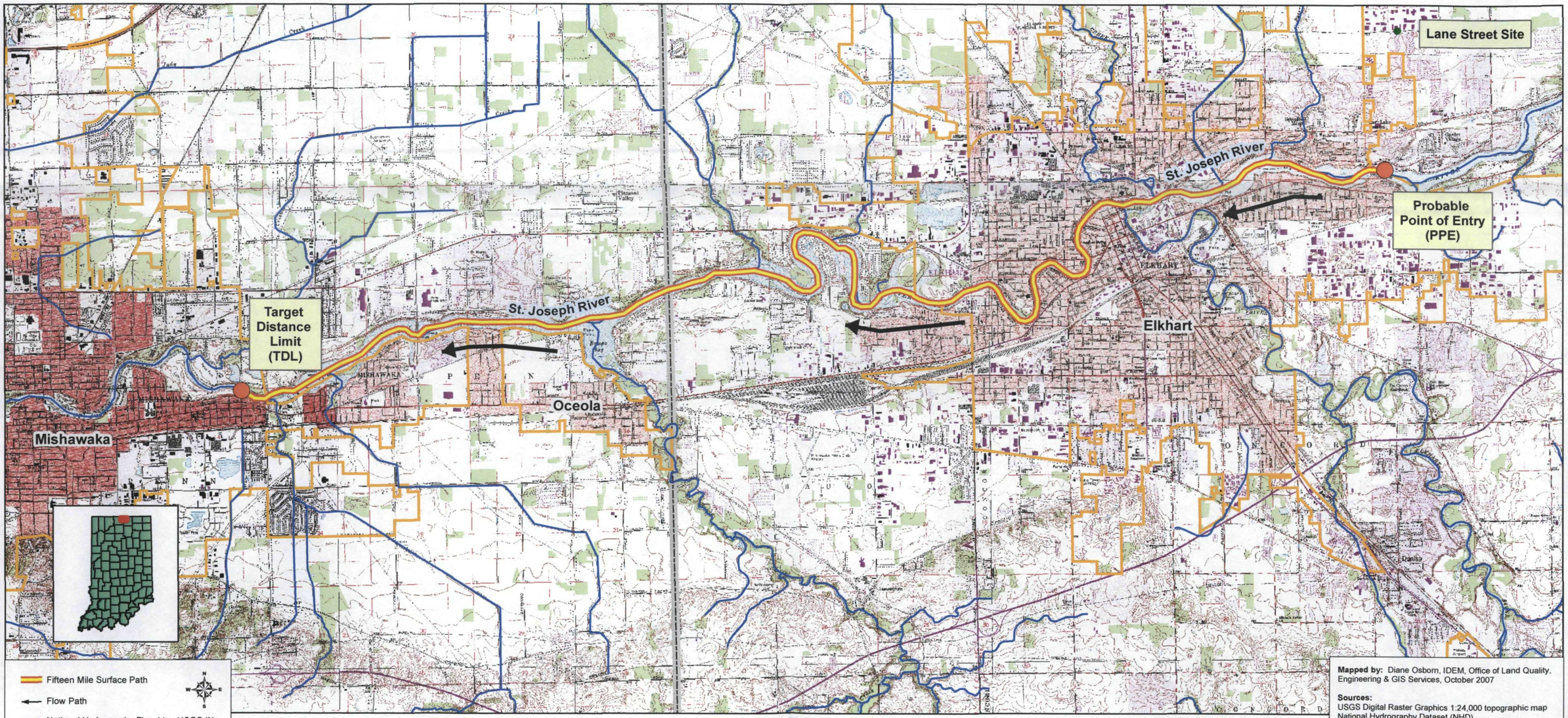
This Map was created using 4 Mile Mapper, a customized application developed in ArcGIS v 9 in the Office of Land Quality, Applied Science Technologies Section by Mr. Raju Gopinath, Indiana Governor's Public Service Intern, Summer 2004.

0 0.5 1 2 3 4 Miles
0 1.5 3 6 KM

APPENDIX B

15 Mile Surface Water Pathway Map

Lane Street Ground Water Contamination
Elkhart, Elkhart County, IN
US EPA ID: INN 000510229
15 Mile Surface Water Map



IDEM
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

0 0.5 1 2 3 Miles
0 1 2 4 KM

Mapped by: Diane Osborn, IDEM, Office of Land Quality, Engineering & GIS Services, October 2007

Sources:
USGS Digital Raster Graphics 1:24,000 topographic map
National Hydrography Dataset (NHD)
Census 2000 County Boundaries
Census 2000 City Boundaries
Indiana Department of Transportation State Boundary

Disclaimer: This map does not represent a legal document. It is intended to serve as an aid in graphic representation only. It is not warranted for accuracy or suitability for any purpose.

APPENDIX C

Chemical Analysis

State Form 4336

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: 15-Nov-07

To: Mark Jaworski
Site Investigations

Thru: Steve Buckel 11-16-07
Jim Risch 11-16-07

From: Christopher Ferguson 16-Nov-07
OLQ Chemistry Section

Subject: Sample Results and Level IV Quality Assurance/Quality Control (QA/QC) Data Report
Lane Street Contamination
Elkhart, Elkhart Co., Indiana
Sampled: August 22, 23, 30, and 31, 2007
Sample Numbers: LQ4537-4545, LQ4570-4579, LQ4581-4595, and LQ4597-4610
Heritage Environmental Services, LLC

The review of the Sample Results and Level IV Quality Assurance/Quality Control (QA/QC) Data Report for the Lane Street Contamination site, reported by Heritage Environmental Services, LLC on 31-Aug-07 and 12-Sep-07, has been completed. The evaluation was based on the procedures and methods described in Laboratory Contract 5-102, the RISC Technical Resource Guidance Document, and "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), Update III. Upon review of the Level IV QA/QC documentation, the data has been determined to be valid and acceptable for use. Reasons that data are qualified as estimated are explained below. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this event was to sample for potential contamination in drinking water. The collected samples were analyzed for Volatile Organic Compounds (VOCs) by EPA method SW-846 8260B; Semi-Volatile Organic Compounds (SVOCs) by method 8270C; Polychlorinated Biphenyls (PCBs) by method 8082; Pesticides by method 8081, the Metals Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver, Sodium, Iron, Manganese, Copper, Boron, and Zinc by method 6010B; and Mercury by method 7471A.

All samples were delivered to the laboratory within one day of collection and were analyzed within the required holding times.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). The drinking water duplicate samples for this study were not in good agreement for some analytes (> 20% difference). Results for the following compounds are estimated with an unknown bias:

VOCs from Aug 22-23: Trichloroethene, 1,1-Dichloroethene, 1,1-Dichloroethane, and Chloroform.

VOCs from Aug 30-31: 1,1,1-Trichloroethene, 1,1-Dichloroethene, and 1,1-Dichloroethane.

According to the field documentation, it does not appear that the appropriate number of field duplicates were collected for the 30/31-August sampling event. The RISC Technical Guide states that 1 duplicate sample should be collected for every 20 samples per matrix. Thirty-four samples were collected during this event, but only one duplicate was taken. Given the number of samples and the fact that multiple sampling teams were utilized for this event, the associated results should be considered estimated with an unknown bias. However, as the purpose of the sampling event was to screen the residential and commercial facilities for impaired drinking water, overall data usability is not affected.

Field blanks (trip and/or equipment) are used to identify sample contamination resulting from sampling equipment, sample containers, chemical preservatives, and the handling and transportation of samples. A trip blank was supplied by the laboratory. No equipment blank was required. No compounds were detected in the Trip Blanks above the detection limit.

Laboratory Quality Assurance/Quality Control:

The laboratory did perform all quality assurance/quality control (QA/QC) measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical results, the following comments and/or qualifications are made regarding the data:

VOCs:

1. 22/23-Aug sampling event: Several compounds (Ethylbenzene, O-Xylene, Dichlorodifluoromethane, Naphthalene, sec-Butylbenzene, Styrene, 1,2,4-Trimethylbenzene, 1,2,5-Trimethylbenzene, 1,3,5-Trimethylbenzene, and 4-isopropylbenzene), were reported out of control (low) in the continuing calibration, matrix spike, and/or matrix spike duplicate analyses. Results for these compounds should be considered estimated with an unknown bias.

2. 30/31-Aug sampling event: Dichlorodifluoromethane was reported out of control low in the continuing calibration analysis. Results for this compound should be considered estimated with a low bias.

The Reproducibility (RPD) results for the MS/MSD analyses were out of control for Vinyl Chloride, Hexachlorobutadiene, 1,2,3-Trichlorobenzene, and 1,2,4-Trichlorobenzene. Results for these compounds should be considered estimated with an unknown bias.

Metals: No issues were noted for the Metals analyses.

SVOCs:

1. Surrogate recoveries for the Laboratory Control Sample, MS/MSD, and LQ4582 were out of control high. Accordingly, all SVOC results should be considered estimated with a high bias. Since all SVOC results were below the detection limits, however, data usability is not affected.

PCBs:

1. Low recoveries for the surrogate Decachlorobiphenyl (DCB) were reported for all of the Matrix Spike (MS) analyses. Results for the other surrogate (2,4,5,6-Tetrachloro-m-xylene or TCMX) were acceptable for the MS analyses. Also, DCB recoveries in the LCS and sample analyses were acceptable. Overall data usability is not affected.

2. Insufficient sample was available for the analysis of a MSD sample. A laboratory spike duplicate was used in place of the MSD. Compound results from the MS sample were in control, so data usability is not affected.

Pesticides:

1. All RPD results for the MS/MSD samples were out of control due to sample loss during laboratory preparation. The individual recoveries of the MS and the MSD samples were in control. Overall data usability is not affected.

Sample Results:

1. Trichloroethene was detected above or near (<5% below) the RISC Industrial Default Closure Level (IDCL) in samples LQ4537-4541, LQ4577, LQ4581-4586, and LQ4598-5601.

   1,1-Dichloroethane was detected above the RISC Residential Default Closure Level (RDCL) in samples LQ4537-4538, LQ4541, LQ4582, LQ4585, and LQ4599-4601.

   All other VOC results were either below the RISC RDCL or the method detection limits.

2. All Metals, SVOC, PCB, and Pesticides results were below the RDCLs or the method detection limits.

Conclusions:

The data are usable for the overall project goal.

The QA/QC documentation contained in the document is sufficient to validate the data. See attachments for the numerical summary of the data. The summary tables list only the analytes detected by the laboratory. The level of contamination detected at the residences presents an acute health risk to those exposed and should continue to be monitored. Additional investigation is recommended to monitor the migration of the plume and to ensure that all affected residences receive the assistance necessary (bottled water, filtration systems, etc.) to protect human health.

Attachments

Volatile Organic Analysis

Site Name:	Lane Street
Site Number:	0000000
Location:	Elkhart
Date Sampled:	22-23, 30-31-Aug-07
Date Reported:	9/31/07, 9/12/07
Sample Number	LQ4537-4545, LQ4570-4579, LQ4581-4595, and LQ4597-4610
Lab:	Heritage

Drinking Water

UNITS: ug/L

Sample #		Type/DF	1,1-Dichloroethene	1,1,1-Trichloroethane	Trichloroethene	1,1-Dichloroethane	Bromodichloromethane	Chlorodibromomethane	Chloroform	cis-1,2-Dichloroethene
Lab	IDEM									
RISC Residential Default Closure Level***			7	200	5	5	80	N/A	80	70
RISC Industrial Default Closure Level***			5100	29000	72	10000	80	N/A	1000	1000
Detection Limits			0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5
A760299	LQ4537	Drinking Water	0.51	3.4	96	93				
A760300	LQ4538	Drinking Water**		3	120	99				
A760301	LQ4539	Drinking Water	0.92	21	7.9	4.2				
A760302	LQ4540	Drinking Water	1	23	300	2.7				
A760303	LQ4541	Drinking Water	0.59	1.7	55	10				
A760304	LQ4542	Drinking Water	1.23			4.1				
A760305	LQ4543	Drinking Water								
A760306	LQ4544	Drinking Water					9.8	2.5	26.8	
A760307	LQ4545	Drinking Water								
A761234	LQ4570	Drinking Water								
A761235	LQ4571	Drinking Water								
A761236	LQ4572	Drinking Water								
A761237	LQ4573	Drinking Water							0.7	
A761238	LQ4574	Drinking Water								
A761240	LQ4575	Drinking Water				1.5	1			
A761241	LQ4576	Drinking Water								
A761243	LQ4577	Drinking Water			9.7					
A761244	LQ4578	Drinking Water								
A761245	LQ4579	Drinking Water								
A761248	LQ4581	Drinking Water		0.9	100	11				
A761249	LQ4582	Drinking Water	1.3	28	300	4.8				0.69
A761250	LQ4583	Drinking Water**	0.99	21	320	3.7				0.64
A761251	LQ4584	Drinking Water			300	3.5				0.77
A761252	LQ4585	Drinking Water			160	3.9				0.57
A761253	LQ4586	Drinking Water			27	3.1				0.64
A761254	LQ4587	Drinking Water								
A761255	LQ4588	Drinking Water								
A761256	LQ4589	Drinking Water								
A761257	LQ4590	Drinking Water								
A761258	LQ4591	Drinking Water				1				
A761259	LQ4592	Drinking Water								
A761260	LQ4593	Drinking Water								
A761261	LQ4594	Drinking Water								
A761262	LQ4595	Drinking Water								
A761276	LQ4597	Drinking Water								
A761263	LQ4598	Drinking Water	0.53	26	7	3.9				
A761264	LQ4599	Drinking Water	0.56	1.8	49	10				
A761265	LQ4600	Drinking Water			49	8.9				
A761266	LQ4601	Drinking Water			21	6.3				
A761267	LQ4602	Drinking Water			1.3	1.9				
A761268	LQ4603	Drinking Water			1.1	3.9				
A761269	LQ4604	Drinking Water								
A761270	LQ4605	Drinking Water								
A761271	LQ4606	Drinking Water								
A761272	LQ4607	Drinking Water								
A761273	LQ4608	Drinking Water								
A761274	LQ4609	Drinking Water								
A761275	LQ4610	Drinking Water								

Bold = Industrial Reference Level
Italic = Residential Reference Level
* BLANK (Type indicated)
NA=NOT AVAILABLE
** FIELD DUPLICATE
N/R = NOT RUN
*** RISC Levels, January 31, 2005 (Soil/Groundwater)
Empty Box indicates NON-DETECTABLE

RCRA Metals & Non-RCRA Primary Standards

Drinking Water

Site Name:	Lane Street
Site Number:	0000000
Location:	Elkhart
Date Sampled:	22-23, 30-31-Aug-07
Date Reported:	8/31/07, 9/12/07
Sample Numbers:	LQ4537-4545, LQ4570-4579, LQ4581-4595, and LQ4597-4610
Lab:	Heritage

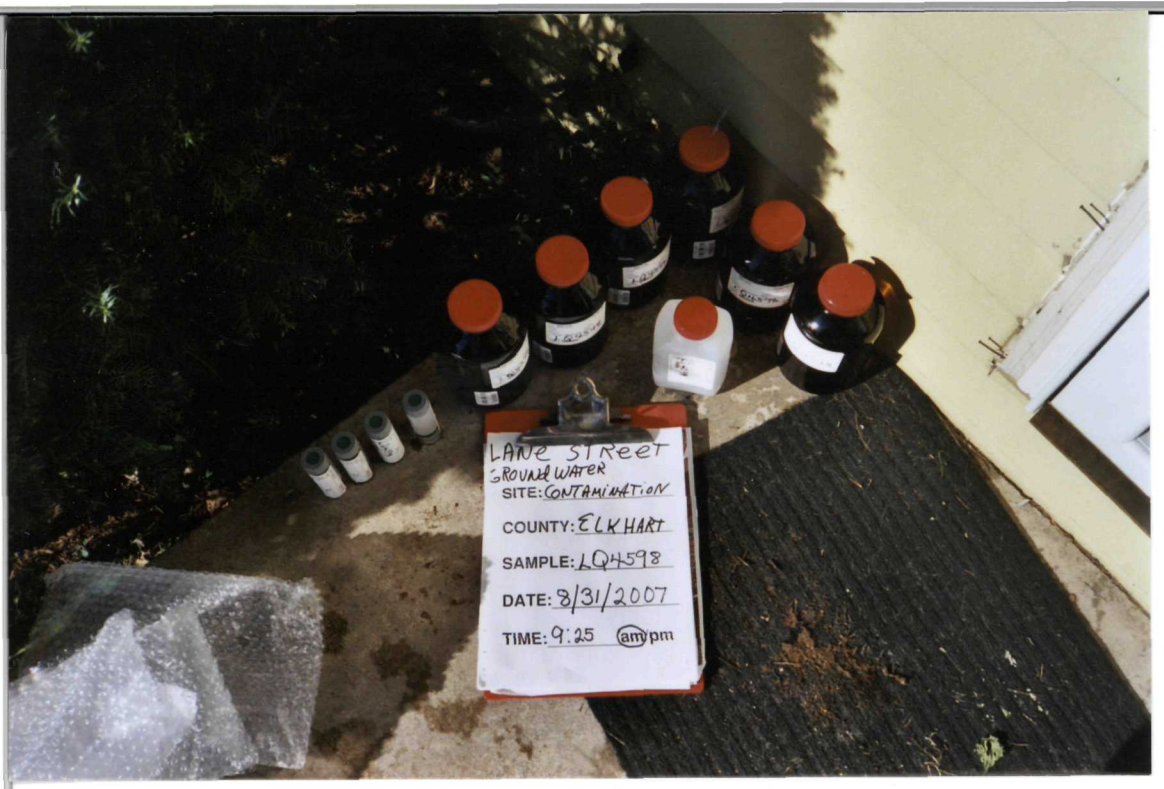
UNITS: mg/L

Sample #		Type/ID#	Barium
Lab	IDEM		
RISC Residential Default Closure Level***			2
RISC Industrial Default Closure Level***			20
Detection Limits			0.01
A780299	LQ4537	Drinking Water	N/R
A780300	LQ4538	Drinking Water**	N/R
A780301	LQ4539	Drinking Water	N/R
A780302	LQ4540	Drinking Water	N/R
A780303	LQ4541	Drinking Water	N/R
A780304	LQ4542	Drinking Water	N/R
A780305	LQ4543	Drinking Water	N/R
A780306	LQ4544	Drinking Water	N/R
A780307	LQ4545	Drinking Water	N/R
A781234	LQ4570	Drinking Water	0.011
A781235	LQ4571	Drinking Water	
A781236	LQ4572	Drinking Water	
A781237	LQ4573	Drinking Water	
A781238	LQ4574	Drinking Water	
A781240	LQ4575	Drinking Water	0.072
A781241	LQ4576	Drinking Water	
A781243	LQ4577	Drinking Water	
A781244	LQ4578	Drinking Water	
A781245	LQ4579	Drinking Water	
A781248	LQ4581	Drinking Water	
A781249	LQ4582	Drinking Water	0.023
A781250	LQ4583	Drinking Water**	0.023
A781251	LQ4584	Drinking Water	
A781252	LQ4585	Drinking Water	
A781253	LQ4586	Drinking Water	
A781254	LQ4587	Drinking Water	
A781255	LQ4588	Drinking Water	
A781256	LQ4589	Drinking Water	
A781257	LQ4590	Drinking Water	
A781258	LQ4591	Drinking Water	
A781259	LQ4592	Drinking Water	
A781260	LQ4593	Drinking Water	
A781261	LQ4594	Drinking Water	
A781262	LQ4595	Drinking Water	
A781276	LQ4597	Drinking Water	
A781263	LQ4598	Drinking Water	0.027
A781264	LQ4599	Drinking Water	
A781265	LQ4600	Drinking Water	
A781266	LQ4601	Drinking Water	
A781267	LQ4602	Drinking Water	
A781268	LQ4603	Drinking Water	
A781269	LQ4604	Drinking Water	
A781270	LQ4605	Drinking Water	
A781271	LQ4606	Drinking Water	
A781272	LQ4607	Drinking Water	
A781273	LQ4608	Drinking Water	
A781274	LQ4609	Drinking Water	
A781275	LQ4610	Drinking Water	

* BLANK (Type indicated)
** FIELD DUPLICATE
*** RISC Levels, January 31, 2006 (Soil/Groundwater)
NA=NOT AVAILABLE
N/R = NOT RUN
Empty Box Indicates NON-DETECTABLE
[illegible]
Bold = Above Reference Level

APPENDIX D

Site Photographs



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:25 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4598
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53515 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:35 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4599
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53535 Lane Street

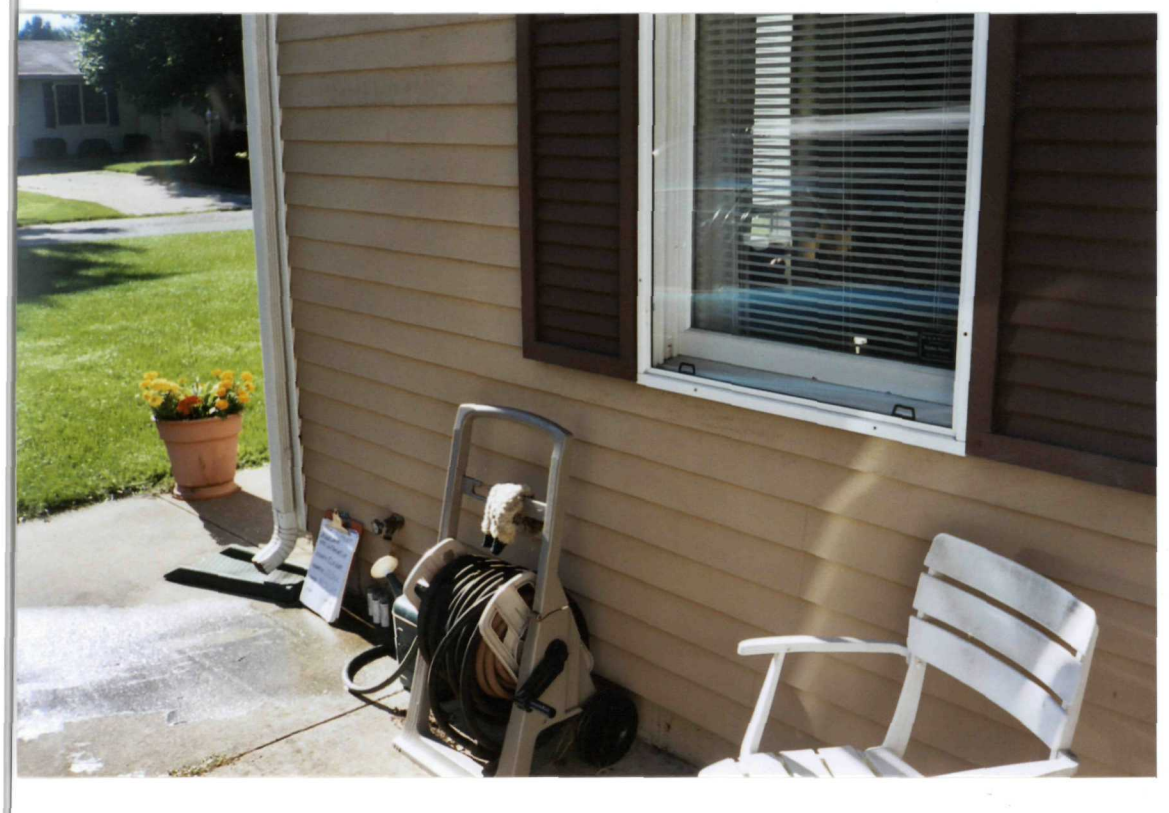
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:25 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4598
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4598 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:35 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4599
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4599 was obtained

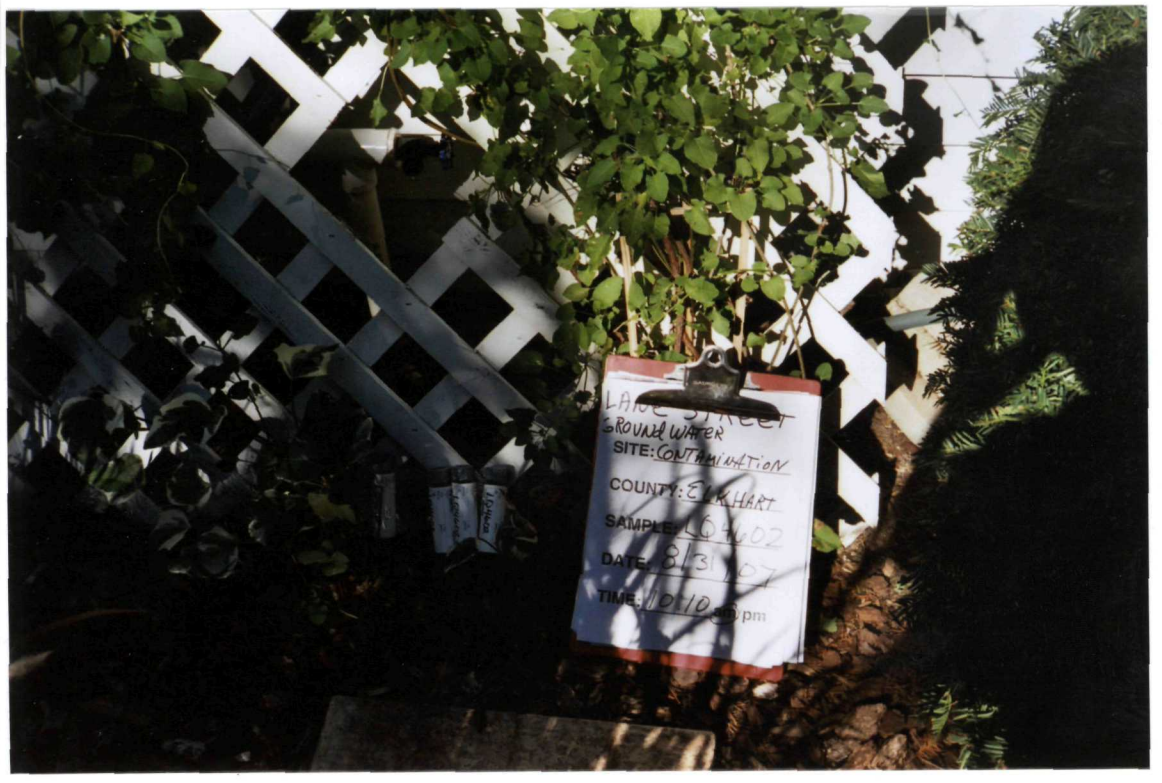
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4600
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4600
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4600 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:00 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4601
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53569 Lane Street



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:00 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4601
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4601 was obtained



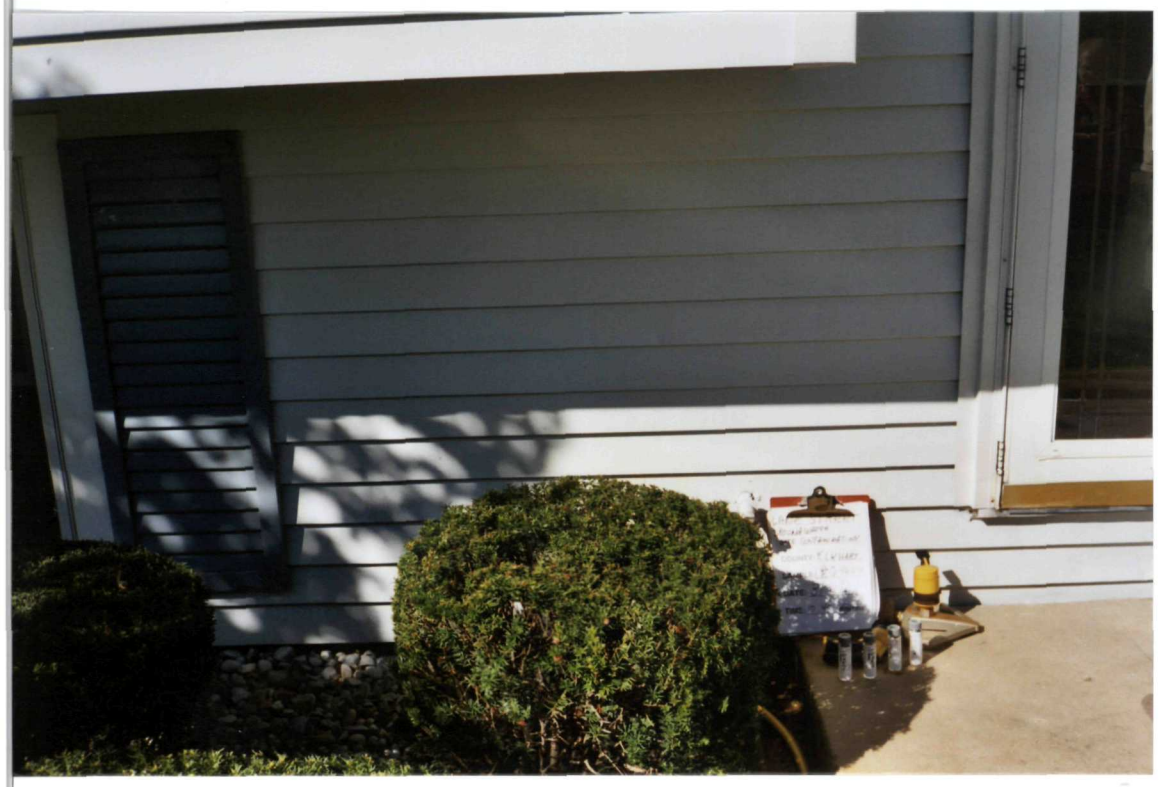
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:10 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4602
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53585 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:10 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4602
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4602 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:20 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4603
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53601 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:20 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4603
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4603 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:45 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4604
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53615 Lane Street



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:45 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4604
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4604 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:55 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4605
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53635 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:55 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4605
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4605 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:10 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4606
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53657 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:10 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4606
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4606 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:15 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4607
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53677 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:15 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4607
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4407 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 44608
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53695 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4608
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4608 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:40 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4609
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 23723 Barley Street

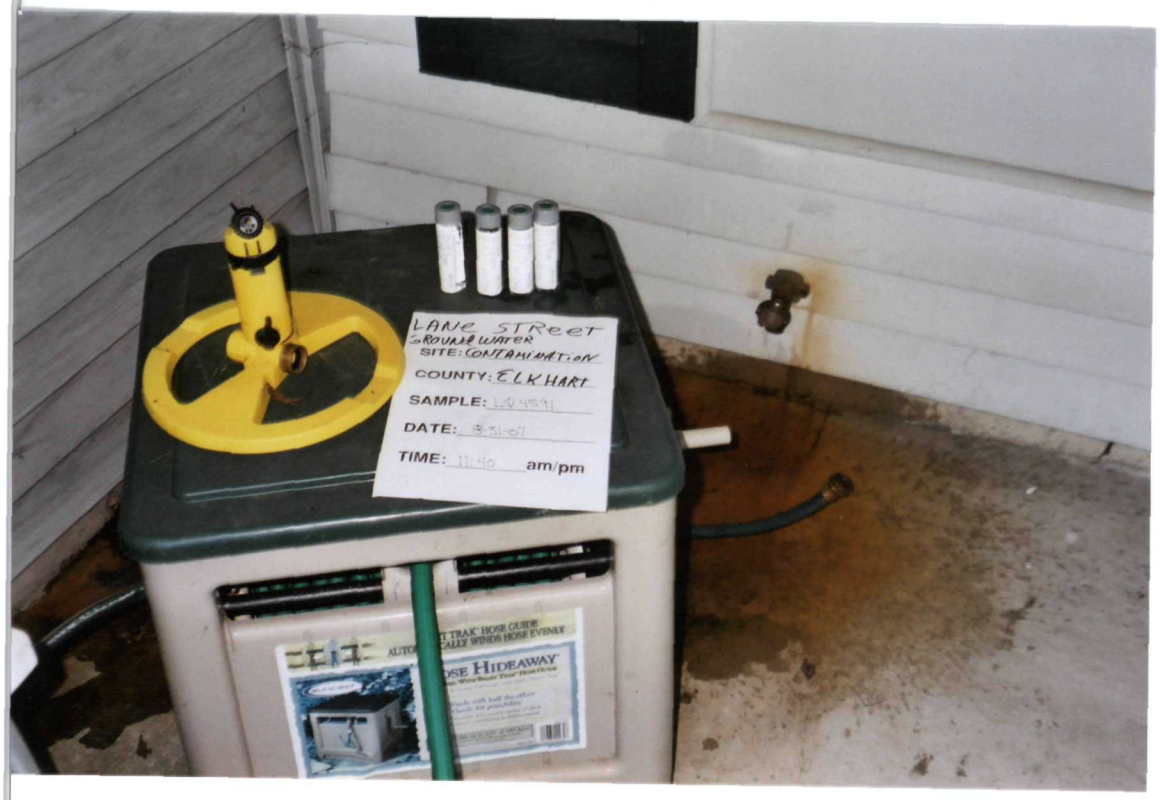
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:40 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4609
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4609 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4610
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4610 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4610
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 23741 Barley Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4592
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53684 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4592
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4592 was obtained

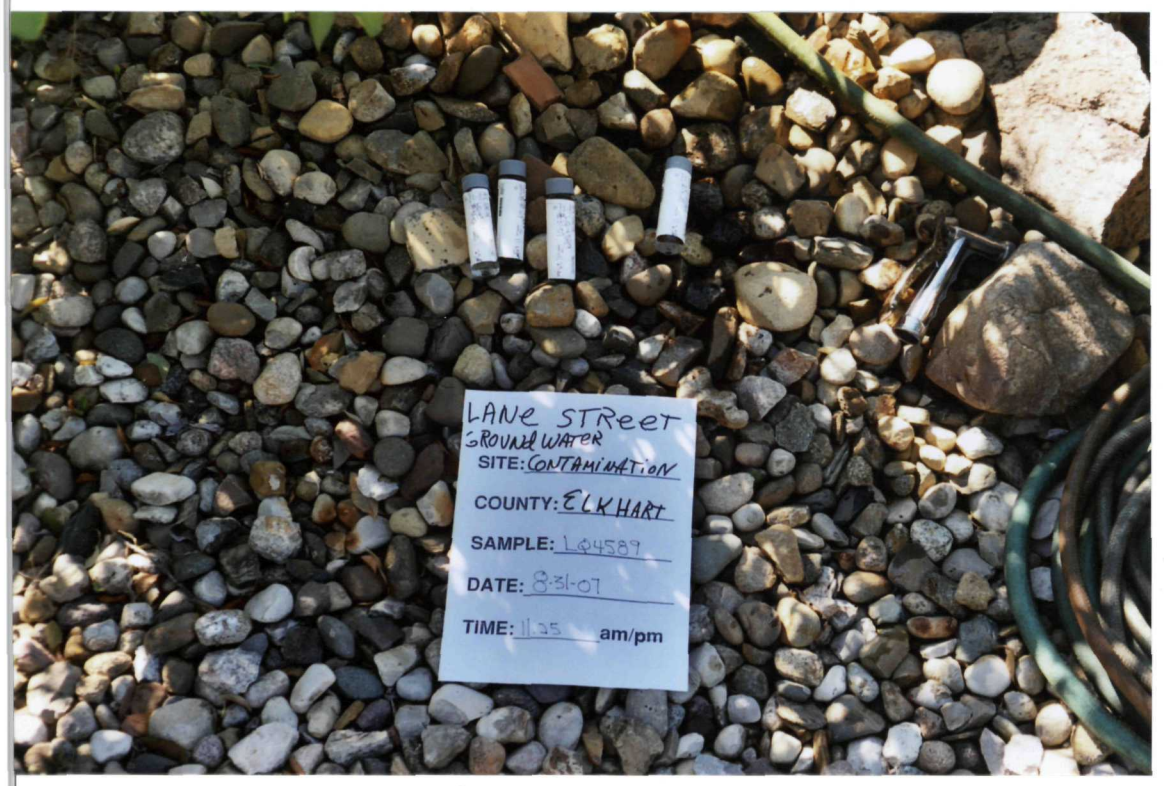


SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:40 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4591
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53668 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:40 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4591
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4591 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4590
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53652 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4690
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4690 was obtained



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:20 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4589
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53634 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:20 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4589
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4589 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:10 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4588
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53618 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:10 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4588
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4588 was obtained

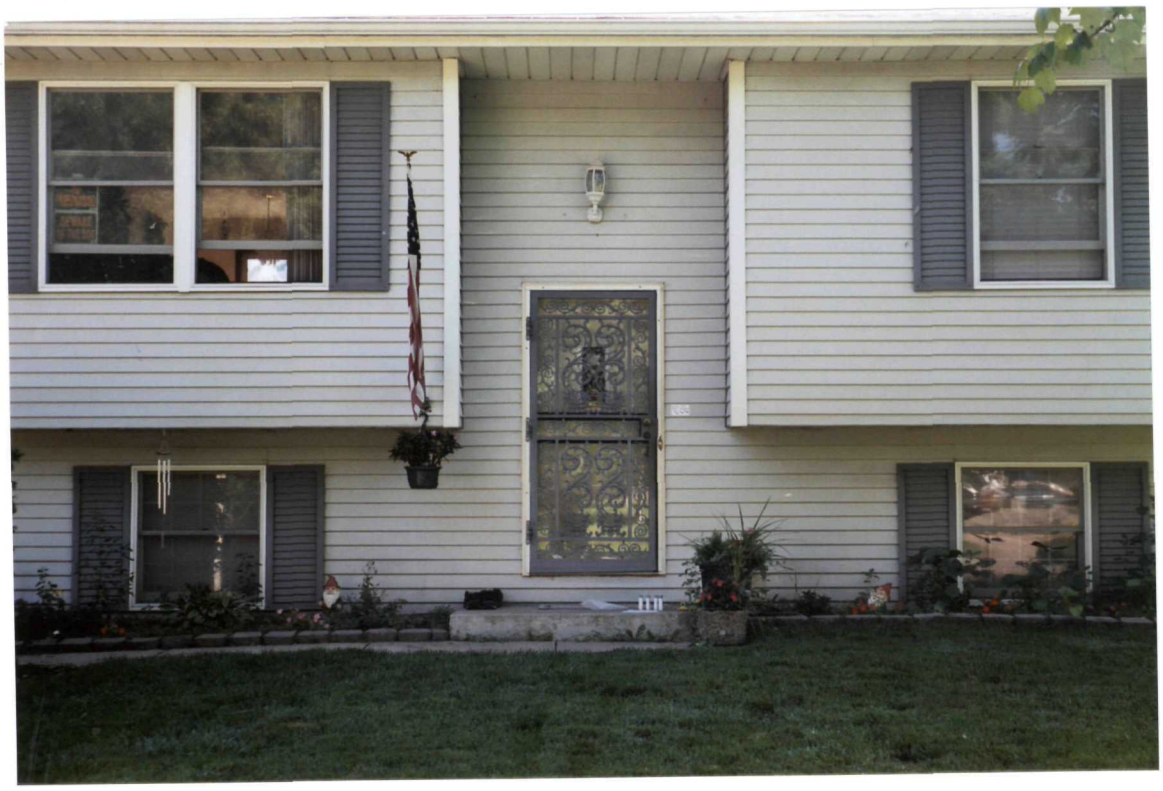
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:00 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4587
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53604 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:00 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4587
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4587 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4586
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53584 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4586
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4586 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:40 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4585
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53564 Lane Street



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:40 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4585
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4585 was obtained

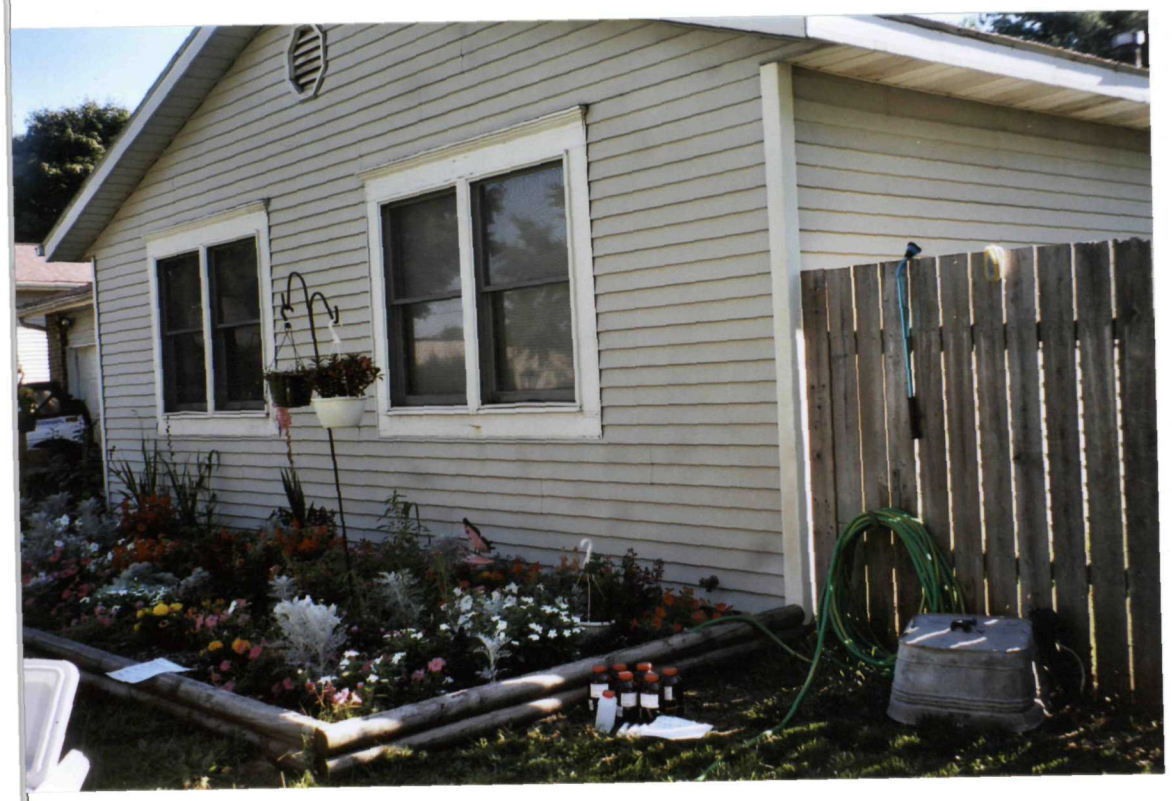
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4584
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53548 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4584
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4584 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4582
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53532 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4582
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4582 was obtained

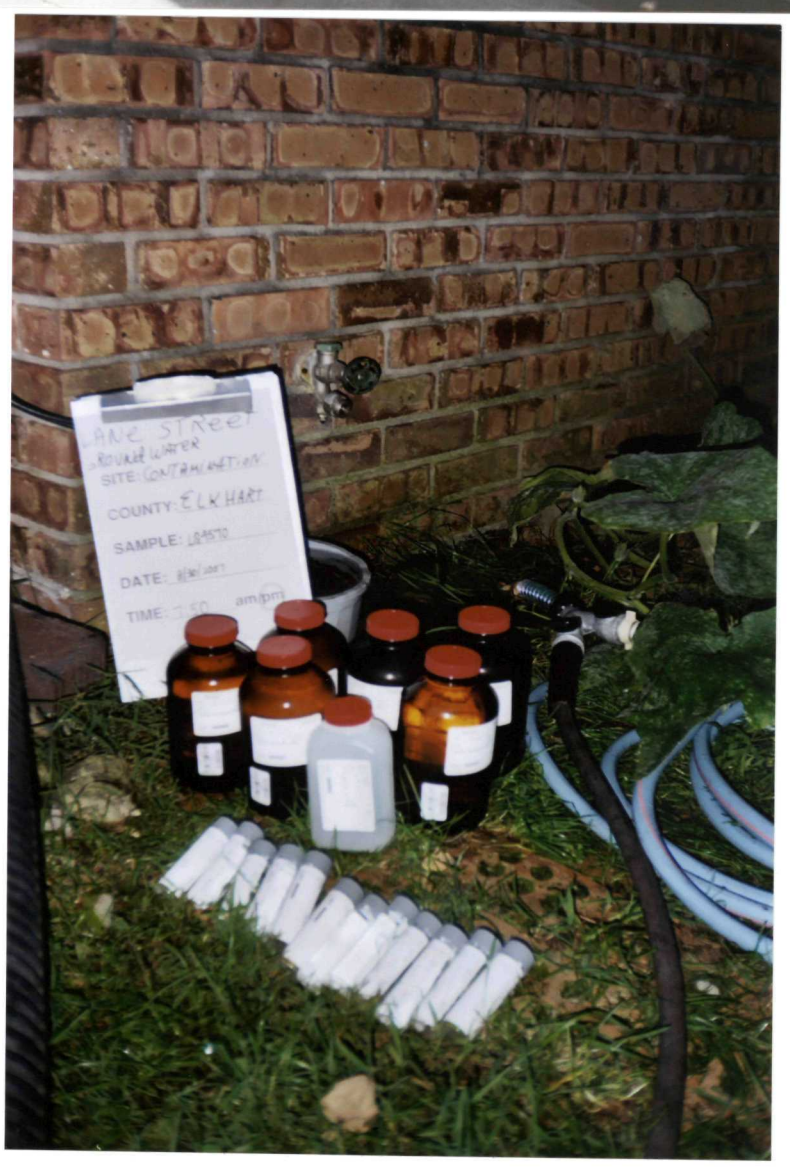
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:15 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4583
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53532 Lane Street



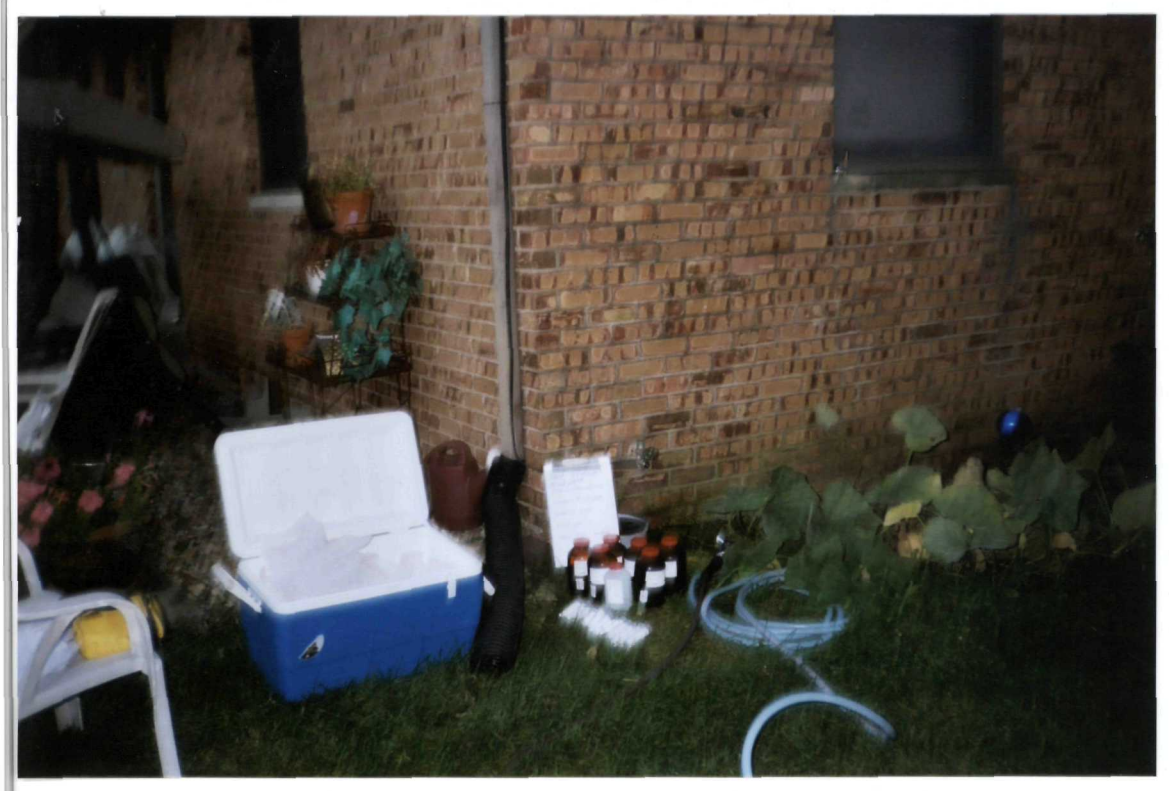
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:15 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4583
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4583 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:40 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4581
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53514 Lane Street

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:40 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4581
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4581 was obtained

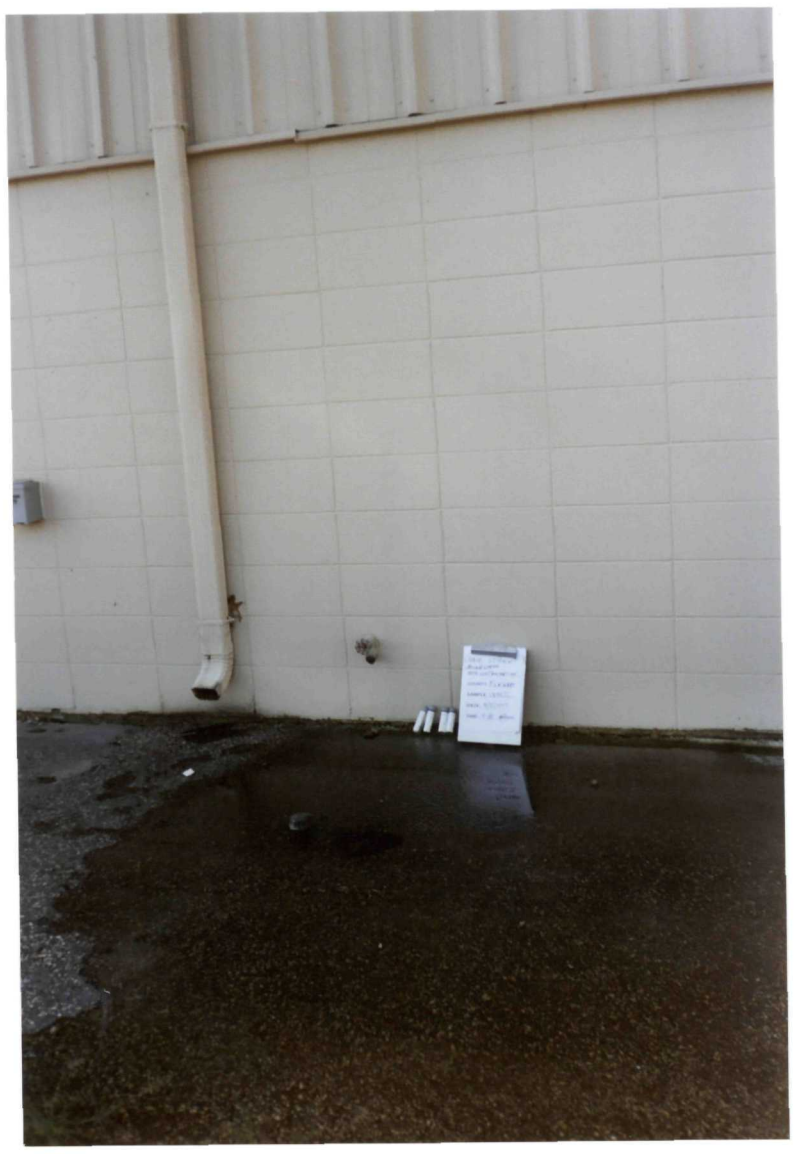


SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 7:50 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4570
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53468 CR 113 N

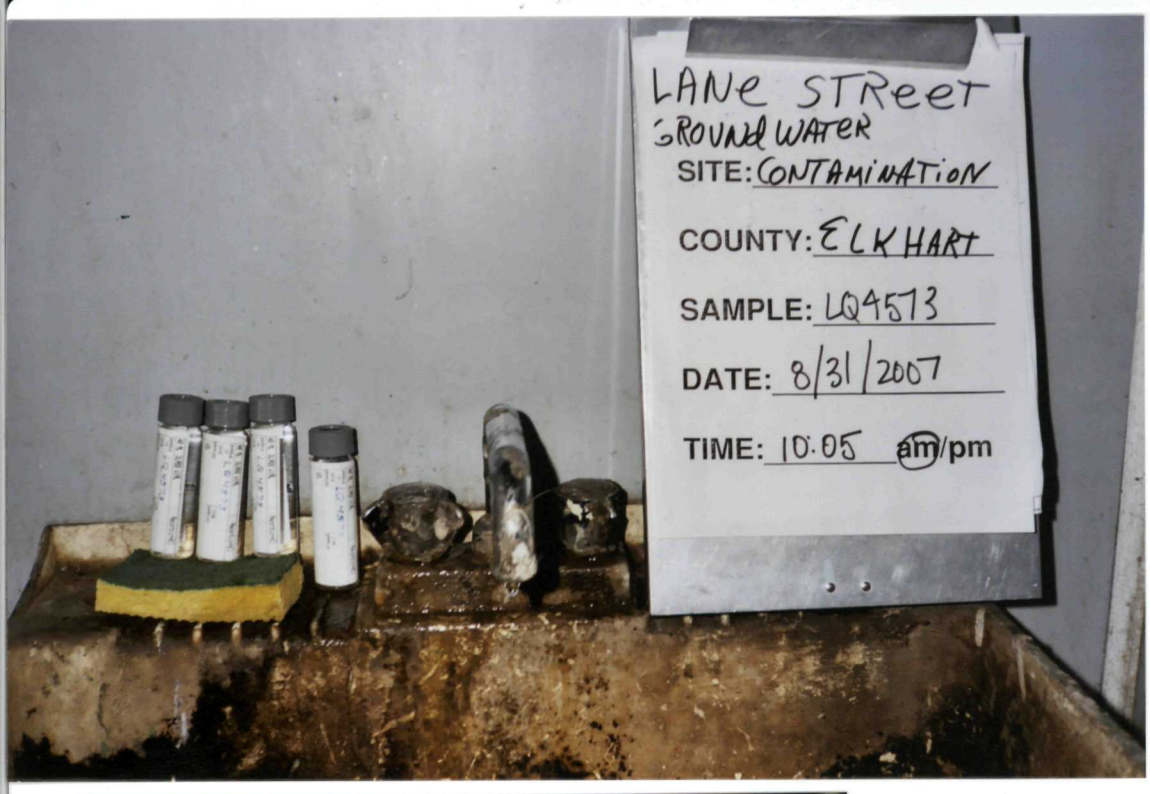


SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 7:50 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4570
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4570 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4572
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53217 Marina



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:30 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4572
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4572 was obtained



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:05 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4573
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 23551 Cooper

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:05 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4573
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4573 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 9:55 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4575
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53386 Ada Street

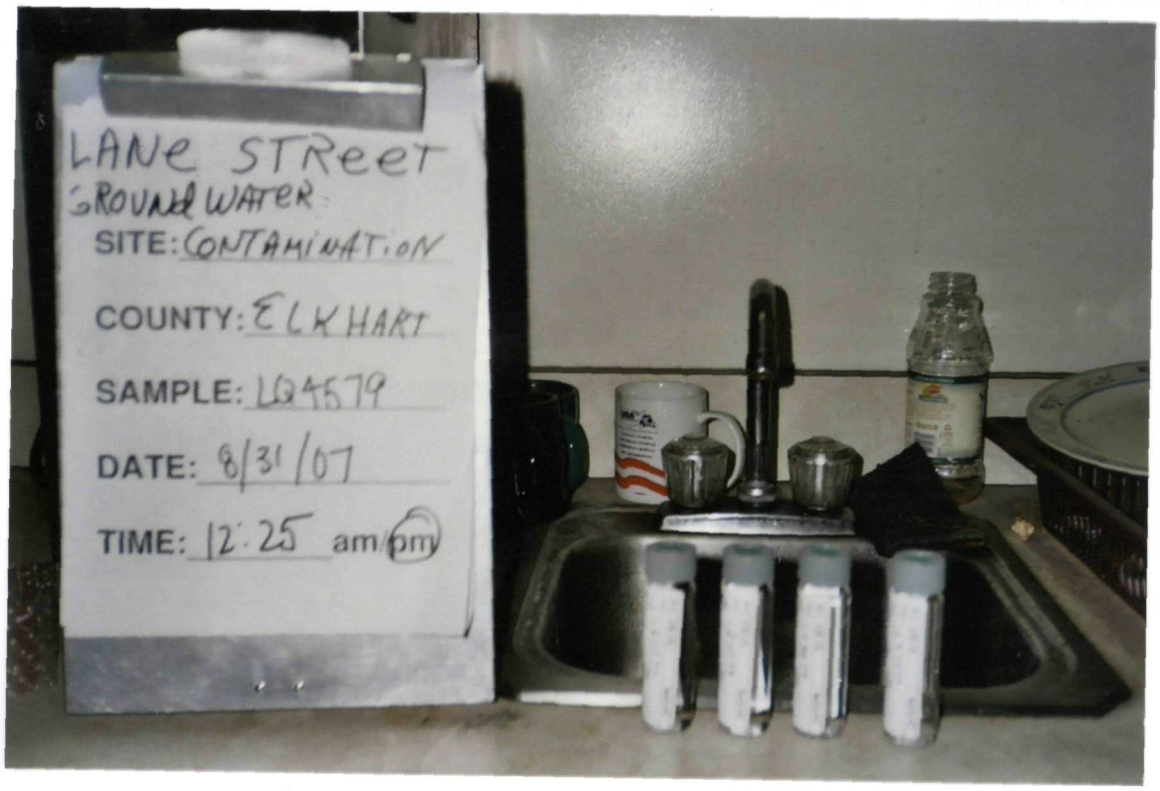
SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 10:55 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4575
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4575 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:20 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4577
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 23537 CR 106

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:20 am
WEATHER: Sunny; 80s º
SAMPLE ID# LQ 4577
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4577 was obtained

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:55 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4578
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53465 Ada

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 11:55 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4578
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4578 was obtained



SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 12:25 am
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4579
SAMPLE TYPE: Ground Water
DESCRIPTION: Ground water sample obtained from 53468 Ada

SITE: Lane Street Ground Water Contamination
EPA ID#: INN000510229
DATE:8/31/07
TIME: 12:25 pm
WEATHER: Sunny; 80s °
SAMPLE ID# LQ 4579
SAMPLE TYPE: Ground Water
DESCRIPTION: Picture shows the area where sample LQ4579 was obtained